Mine Warfare

Discussion

This essential warfare capability is integral to the ability of Naval Forces to effectively open and maintain sea lines of communication and to operate in the littoral battlespace. A considerable array of modern mine countermeasure (MCM) systems continues to be developed and procured for MCM forces.

The U. S. Navy's dedicated MCM force is comprised of 14 MCM-1 class ships, 12 MHC-51 class mine countermeasures ships and two squadrons of MH-53 airborne mine countermeasures helicopters. It also includes Navy Special Operations Forces composed of 15 MCM specialized explosive ordnance detachments, 2 MCM Marine Mammal System (MMS) detachments, and a specialized Very Shallow Water Detachment. The experimental Very Shallow Water (VSW) MCM Detachment, composed of Navy Explosives, Ordnance and Disposal personnel; Navy SEALS; and Force Reconnaissance Marines has proven a viable near term solution to critical operational shortfalls in VSW regions. The detachment is comprised of three platoons consisting of mammals, divers, and unmanned underwater vehicles (UUVs), and brings a critical capability to a technologically challenging environment via fly-in or transportation on ARG shipping. In the mid-term, the intent is to replace the divers and mammals with semi or fully autonomous UUVs that can detect, classify, and neutralize mines in the VSW region. Dedicated MCM forces are task-organized in a triad of Surface MCM (SMCM), Airborne MCM (AMCM), and EOD. This triad provides a sustained, combined capability to conduct MCM operations on short notice. The USS Inchon (MCS-1) provides a dedicated MCM command, control, and support ship to coordinate and support multi-faceted MCM operations with surface, air, and Special Operations Forces.

The Navy's forward deployment of MCM ships in the Arabian Gulf and in the Western Pacific has significantly reduced the time required for SMCM forces to respond to multiple CINC MCM requirements in two likely areas of confrontation. Near term improvements to the dedicated force include upgrading the AN/AQS-14 airborne mine hunting sonar, improving the MK-105 influence minesweeping sled system, and providing the MH-53 with an organic mine neutralization system.

The Navy has invested in an aggressive programmatic initiative to deploy a fully capable organic MCM systems package with a Carrier Battle Group (CVBG). This system's capability will allow the Task Force to conduct mine reconnaissance, mine hunting, minesweeping, and mine clearance supporting maneuver in a mined environment. The long term goal is outfitting

all Carrier Battle Groups and Amphibious Readiness Groups with some level of organic MCM systems packages, keeping ships and personnel out of mine danger areas and effectively conducting MCM operations.

Focused science and technology and developmental efforts are producing technological solutions to difficult mine warfare problems. The Remote Mine Hunting System (RMHS) is undergoing experimentation to improve organic MCM capability. The RMHS will provide an organic, surface ship-hosted mine reconnaissance capability.

Marine Corps Position

Critical deficiencies in MCM currently exist in the Shallow Water and Surf Zone Mine Countermeasure Programs. Focused science, technology and developmental efforts to provide capabilities to detect, avoid, clear, and neutralize mine and obstacle threats will allow optimization of naval expeditionary force and power projection capabilities.